

memorandum

DATE: June 7, 2001

REPLY TO: Office of Environmental Policy and Guidance (EH-41):DLentzen, 6-7428
ATTN OF:

SUBJECT: Section 503 Priority Chemical List under Executive Order (EO) 13148, *Greening the Government through Leadership in Environmental Management*

TO: Headquarters Pollution Prevention Staff
Field Waste Minimization/Pollution Prevention Contacts
DOE TRI Technical Contacts

PURPOSE

To distribute the EO 13148 interagency workgroup's *draft* list of chemicals, applications and alternatives to select Department of Energy (DOE) Headquarters and Field elements for review and comment. Comments are due Wednesday, June 27, 2001, for consolidation and transmittal to the Environmental Protection Agency (EPA) chair of the EO workgroup.

BACKGROUND

EO 13148, section 503, requires that a Federal interagency workgroup develop a list of chemicals used by the Federal Government that may result in significant harm to human health or the environment and that have known, readily available, less harmful substitutes for identified applications and purposes. EO 13148 further requires that Federal agencies (with certain exceptions) reduce their use of those chemicals for the identified applications by fifty percent by December 31, 2006.

EO 13148 states that development of the list shall consider: (1) environmental factors including toxicity, persistence, and bio-accumulation; (2) availability of known, less environmentally harmful substitute *chemicals* that can be used in place of the priority chemical for identified applications and purposes; (3) availability of known, less environmentally harmful *processes* that can be used in place of the priority chemical for identified applications and purposes; (4) relative costs of alternative chemicals or processes; and (5) potential risk of environmental and human exposure based upon applications and uses of the chemicals by Federal agencies.

The EO 13148 interagency workgroup has prepared a draft list of chemicals, applications and associated alternatives that reflect the criteria described above. The draft list was generated from experiences provided by Federal field personnel and is presented as attachment A. The list is preliminary and chemicals, specified applications and proposed alternatives on the draft list are not necessarily those that will appear on the final section 503 list and may change based upon comment. The workgroup will prepare guidance to assist Federal agencies and facilities in meeting the objectives of section 503. Where proposed alternatives are associated with equipment replacement, the guidance will likely target cost effective reduction of risk by phasing out use for specified applications as the equipment using the target chemical reaches its expected service life. The web site for this draft list and future interagency workgroup guidance is <http://www.epa.gov/fedsite>.

DOE intends to use the 'alternative' in section 503(d), reduction in generation of five hazardous or radioactive waste types (i.e., the Secretary's Pollution Prevention goals pursuant to DOE N 450.4) to address this section of the EO. For the DOE complex, the primary focus over the next several years will be to reduce the generation of hazardous and radioactive waste from routine operations and from site cleanup, stabilization and decommissioning activities. However, DOE's use of the alternative hazardous and radiative wastes goals to satisfy section 503 of the EO, in no way restricts or limits sites from voluntarily reducing/eliminating the use of priority chemicals under consideration by the interagency workgroup. In fact, sites are encouraged to explore available means for establishing site-specific goals to reduce/eliminate the use of these priority chemicals, possibly under the site's integrated safety management system continuous improvement process.

ACTION

The Office of Environmental Policy and Guidance, EH-41, is requesting comments **on or before Wednesday, June 27, 2001**. Comments should be e-mailed to EH-41 at reisa.kall@eh.doe.gov, or faxed to (202) 586-3915. Please provide any available basis, such as studies, reviews, examples or facility experiences, along with your comments, as appropriate. For your convenience we have prepared a comment form in attachment B that you can complete on your computer and return electronically.

CONTACT

Questions concerning this memoranda should be directed to Don Lentzen of my staff via e-mail donald.lentzen@eh.doe.gov, or telephone (202) 586-7428.



Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy and Guidance

Attachments (2)

DRAFT - EO 13148 Section 503 Chemical List

Use	Chemical	Proposed/Draft Alternatives (NOTE: this draft list does not include all alternatives!)
Temperature and pressure measuring devices (medical and industrial)	Mercury	Aneroid manometers - digital and electronic temperature measuring devices
Switches	Mercury	Electronic thermostats - mechanical switches, ultrasonic and photoelectric sensors
Lab Use	Mercury	Zinc formalin, sample freeze drying
Surface coating/plating processes	Cadmium	Alternative metal coatings, metal deposition, flame coating, limited area plating
Surface coating/plating processes	Chrome (chromium VI)	Alternative metal coatings, metal deposition, flame coating, limited area plating
Surface coating/plating processes	Nickel	Alternative metal coatings, metal deposition, flame coating, limited area plating
Wastewater Disinfection	Chlorine (solid and gaseous)	Ozone treatment, UV light, chlorine dioxide
Biocide in cooling towers	Chlorine(solid and gaseous)	Ozone treatment
Photographic Operations	Silver	Digital photographic processes
Radiography (medical and industrial)	Silver	Digital computer radiography
Tin/Lead Soldering	Lead	Tin copper eutectic, Tin silver eutectic
Herbicide	2,4-Dichlorophenoxyacetic Acid	Process changes and native landscaping
Fungicide (aquaculture)	Formalin	Hydrogen peroxide
Drycleaning	Perchloroethylene	Process change: "wet" cleaning systems, liquid carbon dioxide
Medical/general Sterilizer	Ethylene Oxide	Gamma, electron beam radiation, vapor phase hydrogen peroxide, peracetic acid
Pesticide/insecticide	Methoxychlor	Integrated Pest Management including process changes
Pesticide	Napthalene	Integrated Pest Management including process changes
Pesticide/herbicide	Pendimethalin	Integrated Pest Management including process changes

Pesticide	Pentachlorobenzene	Integrated Pest Management including process changes
Pesticide	Pentachlorophenol	Integrated Pest Management including process changes
Wood Preservative	Pentachlorophenol	Recovered plastic lumbers and timbers, steel, aluminum
Insulating material (dielectric fluids in transformers and ballasts)	PCBs	Early retirement of existing PCB containing equipment

Attachment B

COMMENT SURVEY, E.O. 13148, SECTION 503 CHEMICALS

1. Site name:
2. Point of contact and phone number:
3. Are any of the proposed chemicals and specific application used at the site?
Yes _____ No _____
4. If yes for question number 3, please list the chemical(s) and use(s):

<u>Chemical</u>	<u>Use</u>
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5. For each chemical and use listed under number 4, please provide the following information:
 - 5.1 Chemical name and use:
 - a. Please describe any experience, including success or failure, of the proposed or other alternative:
 - b. Please describe potential logistical problems that may affect implementation of the alternative at your site:
 - c. Please describe any existing environmental and/or health issues, including exposure, associated with the use of the proposed chemical:
 - d. Please describe any situations where disposal or removal of the proposed chemical may pose a threat to the environment or human health:
 - e. Please describe whether the site has attempted to use a less harmful, cost effective alternative:
 - f. Please describe what you think would be reasonable thresholds for the proposed chemical, below which the E.O. reduction requirement would not apply:
 - g. Please describe what criteria and methods would best determine progress toward reduction goals at your site:
 - h. Please describe what information would be necessary for your site to implement reduction of this chemical and use at your site:
 - i. Please describe any other comments you have regarding the reduction of this chemical and specific use:
 - 5.2 [Copy questions 'a' through 'i' above, as necessary, for each additional chemical/use.]
6. Please identify any other chemicals/uses and alternatives you have identified which meet the E.O. criteria, but which are not on the proposed list: